



EXHIBIT 2

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Docket No. 0776/1F216-US2

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Allan **SVENDSEN**, *et al.*

Serial No.: 09/327,563

Group Art Unit: 1652

Filed: June 8, 1999

Examiner: E. Slobodansky

For:  **$\alpha$ -AMYLASE MUTANTS**

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**AMENDMENT TRANSMITTAL**

Hon. Commissioner of  
Patents and Trademarks  
Washington, DC 20231

Sir:


Transmitted herewith is an amendment in the above-identified application.  
The fee has been calculated as shown below.

	Claims remain- ing after amendment	Highest number previously paid for	Present extra	Rate	Additional Fee
Total Claims	112	100	12	\$18	\$216.00
Independent	54	58	0	\$	\$

Total additional fee  
for this amendment \$216.00

- ☐ Small Entity REDUCTION (Half of preceding total) \$
- ☐ No additional fee is required.
- ☒ A check in the amount of \$216.00 is attached.
- ☒ Please charge any additional fees or credit overpayment to  
Deposit Account No. 04-0100. A duplicate copy of this sheet  
is enclosed.

Respectfully submitted,

  
Joseph R. Robinson  
Registration No. 33,448  
Attorney for Applicants

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June 2, 2000

Honorable Commissioner of  
Patents and Trademarks  
Washington, D.C. 20231

**SUPPLEMENTAL PRELIMINARY AMENDMENT**

Sir:

Before examination, kindly amend the above-identified application as follows:

**In the Claims:**

Cancel claims 105, 106, 110-112, and 188-191 without prejudice.

Add new claims 193-213 reading as follows:

-- 193.           A variant of a parent alpha-amylase, said variant having an amino acid sequence which differs from the amino acid sequence of said parent, wherein the difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at one or more positions selected from the group consisting of the positions which correspond to amino acid residues Q298, G299, G301, Y302, L307, F343, F403, H405, H406, D407, L427, I428, D430, G433, and G475 in *Bacillus licheniformis* alpha-amylase. --

-- 194.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue Q298 in *Bacillus licheniformis* alpha-amylase. --

-- 195.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue G299 in *Bacillus licheniformis* alpha-amylase. --

-- 196.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue G301 in *Bacillus licheniformis* alpha-amylase. --

-- 197.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue Y302 in *Bacillus licheniformis* alpha-amylase. --

-- 198.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue L307 in *Bacillus licheniformis* alpha-amylase. --

-- 199.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue F343 in *Bacillus licheniformis* alpha-amylase. --

-- 200.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue F403 in *Bacillus licheniformis* alpha-amylase. --

-- 201.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue H405 in *Bacillus licheniformis* alpha-amylase. --

-- 202.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue H406 in *Bacillus licheniformis* alpha-amylase. --

-- 203.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue D407 in *Bacillus licheniformis* alpha-amylase. --

-- 204.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue G427 in *Bacillus licheniformis* alpha-amylase. --

-- 205.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue I428 in *Bacillus licheniformis* alpha-amylase. --

-- 206.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue D430 in *Bacillus licheniformis* alpha-amylase. --

-- 207.           The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue G433 in *Bacillus licheniformis* alpha-amylase. --



-- 208. The variant according to claim 193, wherein said difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at the position which corresponds to amino acid residue G475 in *Bacillus licheniformis* alpha-amylase. --

-- 209. The variant according to claim 193, wherein said parent alpha-amylase is produced by *Bacillus*.--

-- 210. The variant according to claim 193, wherein said parent alpha-amylase is produced by *Bacillus licheniformis*, *Bacillus amyloliquefaciens* or *Bacillus stearothermophilus*.--

-- 211. A detergent comprising the variant according to claim 193.--

-- 212. A starch liquefaction composition comprising the variant according to claim 193.--

-- 213. A variant of a parent alpha-amylase, said variant having an amino acid sequence which differs from the amino acid sequence of said parent, wherein the difference between said variant and said parent comprises a different amino acid residue in said variant than in said parent at one or more positions selected from the group consisting of the positions which correspond

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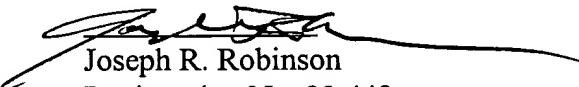
to amino acid residues Q298, G299, G301, Y302, L307, H405, H406, D407, I428, D430, and G475 in *Bacillus licheniformis* alpha-amylase. --

**Remarks**

Claims 105, 106, 110-112, and 188-191 have been canceled without prejudice. Claims 193-213 have been added and are supported by the application as filed. Therefore, claims 77-81, 84-88, 90-93, 97, 113-187, and 192-213 are pending and are at issue. Appendix 1 attached hereto demonstrates support in the present specification for the newly added claims.

It is believed that the pending claims are free from any ground for rejection over the prior art, and early passage to allowance is earnestly solicited.

Respectfully submitted,

  
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